

REMARKS/ARGUMENTS

Claim 2-4, 7-11, 14, 15, 18, 19, 22, 23, and 26-38 are now pending in the present application. Claim 1 has been cancelled. Claims 2-4, 7-9, 11, 15, 19, 23, 31, and 32 are amended. Claims 37 and 38 are new. In view of the above amendments and following remarks, the Examiner is respectfully requested to reconsider the various claim rejections.

Acknowledgment of Information Disclosure Statement

The Examiner is respectfully requested to acknowledge the Information Disclosure Statement filed on June 9, 2004. An initialed copy of the PTO-1449 should be sent to the undersigned at the earliest convenience of the Examiner.

Rejection Under 35 U.S.C. § 112

Claims 1-4, 7-9 and 32 were rejected by the Examiner under 35 USC 112, second paragraph, as being indefinite. In this rejection, the Examiner points out various elements in independent claim 1 which are allegedly confusing.

Applicants respectfully submit that independent claim 1 has been canceled in favor of new independent claim 37. Furthermore, claims 2-4, 7-9, and 32 have been amended so that they now depend from claim 37.

Applicants respectfully submit that the language in claim 37 has been drafted in order to address the concerns brought up by the Examiner in this rejection.

Furthermore, in regards to the Examiner's assertion that "it is unclear how the conversion circuits can be receiving serial signals" (Office Action at page 2, last paragraph), Applicants point out that the specification at page 21, paragraphs 1-3, clearly disclose that the apparatus includes circuitry for performing both parallel-to-serial conversion and serial-to-parallel conversion. In response to the Examiner's assertion that "the claim does not recite that the circuits also perform serial-to-parallel conversions," it is respectfully submitted that new dependent claim 38 recites that the parallel/serial conversion circuit is operable to "convert the serial signals to a parallel signal."

Accordingly, it is respectfully submitted that the claim rejections under 35 U.S.C. § 112, second paragraph, have been properly accommodated. Thus, withdrawal of this rejection is respectfully requested.

Rejection Under 35 U.S.C. § 103

Claims 2-4, 7-11, 14, 15, 18, 19, 22, 23, 26, and 32-36 stand rejected under 35 USC § 103(a) as being unpatentable over

U.S. Patent No. 4,924,464 to Baylock (hereinafter Baylock), in view of U.S. Patent No. 5,040,270 to Upp et al. (hereinafter Upp) and U.S. Patent No. 4,979,100 to Makris et al. (hereinafter Makris). This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.

As mentioned above, independent claim 1 has been canceled and replaced with new independent claim 37. Claims 2-4, 7-10, and 32 now dependent from independent claim 37. Thus, this rejection, as it pertains to claim 1, is rendered moot.

Independent claims 11, 15, 19, 22, and 37 each recite a backplane communicatively connecting a cross-connect card to a device interface card. Furthermore, independent claims 11, 19, and 37 recite converting a parallel signal into multiple serial signals, which are transmitted over the backplane to communicate data between the cross-connect card and the device interface card. Independent claims 15 and 23 recite receiving the serial signals from the backplane, which represent data communicated between the cross-connect card and the device interface card, and converting these signals into a parallel signal.

The Examiner acknowledges that neither Baylock nor Upp discloses the claimed backplane. See Office Action at page 5. The Examiner relies upon Makris to remedy this deficiency.

Makris discloses a packet switch system including a Transmission Facility (TF) and a Switch Facility (SF). In Makris, the TF consists of a cage including one or more level converters (LCs) and protocol control units (PCUs), which are connected via an intracage backplane.

According to Makris, the TF provides media access control including frame-level processing, signal conversion, and physical connections. Specifically, the LC is configured to convert the input data from RS232 to TTL format. This data is converted to serial signals in order to be transmitted from the LC to the PCU via the backplane. See column 8, lines 61-64; column 9, lines 32-35; and column 10, lines 5-7.

In Makris, the SF performs the switching functions for the packet data. The SF consists of a cage including line processing modules (LPMs), which are interconnected via an intracage backplane. According to Makris, the LPM is connected to the TF via parallel transfer bus (PTB) to receive the TTL-converted data from the TF. See column 8, lines 29-35 and 61-68; and column 9, lines 35-42.

In the Office Action, the Examiner asserts that Makris discloses "a system wherein a parallel signal is multiplexed into a serial signal in order to reduce the number of pins needed on the backplane" (see Office Action at page 5). The

Examiner is apparently citing column 10, lines 5-7. Applicants respectfully submit that this section of Makris refers to the transmission of signals between the LC and the PCU in the Transmission Facility. However, Makris discloses that the data must be converted from serial to parallel to be transferred from the Transmission Facility to the Switch Facility. See column 9, lines 35-42.

Furthermore, in the Switch Facility, Makris discloses that all of the modules are interconnected by a redundant parallel bus system, which includes the intracage backplane and an intercage backplane. See column 13, lines 39-43. Accordingly, Makris discloses that any data transmitted to a module within the SF (either from the TF, or from another module within the SF) is transmitted as a parallel signal.

Accordingly, there is no teaching or suggestion in Makris of a backplane over which data is communicated as serial signals between a cross-connect card and an interface card, as required by independent claims 11, 15, 19, 23, and 37. Furthermore, it is respectfully submitted that there is no such teaching or suggestion in Baylock and Upp, and that the Examiner does not assert that such teaching or suggestion exists in Baylock and Upp.

Thus, it is respectfully submitted that independent claims 11, 15, 19, 23, and 37 are allowable at least for the reasons set forth above. Furthermore, it is respectfully submitted that claims 2-4, 7-10, 14, 18, 26, and 33-36 are allowable at least by virtue of their dependency on claims 11, 15, 19, 23, and 37. Accordingly, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Claims 27-31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Baylock in view of Upp and further in view of U.S. Patent No. 5,159,595 to Flanagan et al. (hereinafter Flanagan). Initially, Applicants respectfully submit that the combination of Baylock, Upp and Flanagan fails to disclose the use of a backplane, and that the Examiner does not assert that this combination discloses the use of a backplane. Furthermore, even assuming for the sake of argument that the Examiner intended to include Makris in this combination, it is respectfully submitted that Flanagan fails to remedy the deficiencies of Baylock, Upp, and Makris set forth above in connection with independent claims 11, 15, 19, 23, and 37. Accordingly, it is respectfully submitted that claims 27-31 are allowable at least by virtue of their dependency on claims 11, 15, 19, 23 and 37. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Conclusion

In view of the above Amendment and Remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination.

Accordingly, Applicants request the Examiner to reconsider the outstanding rejections and issue a Notice of Allowance in connection with the present application.


Should the Examiner believe that any outstanding matters remain in the present application, the Examiner is respectfully requested to contact Jason W. Rhodes (Reg. No. 47,305) at the telephone number of the undersigned to discuss the present application in an effort to expedite prosecution.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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